Disguised Herpes: Atypical Presentation of an Acute Herpetic Deep Keratouveitis

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Abstract
Herpes simplex virus (HSV) manifests ocularly with various presentations often confounding its diagnosis. This poster presents an atypical case of acute HSV keratouveitis without epithelial involvement. Clinical features, diagnosis, and treatment/management modalities will be discussed.

I. Case History
• 64 year old white male
• Chief complaint
  o Referred from emergency room for a red eye OS
  o Red, light sensitive eye OS developing 2 days prior
  o Progressively worsening until night before exam
  o Associated symptoms
    1. Watering OS
    2. Soreness OS
    3. Pain 8/10 OS
• Ocular history
  o New patient, previous eye care outside the VA system but no significant ocular history per patient
• Medical history
  o Hypertension
  o Benign prostatic hyperplasia
  o Pt denies any inflammatory conditions
  o History of cold sore on lip one week prior to irritation
• Medications
- Lisinopril 10mg
- Doxazosin 4mg

II. Pertinent findings
   - Clinical:
     - Uncorrected distance acuity: 20/30- OD, 20/30- OS
     - Distance pinhole acuity: 20/25 OD, PHNI OS
     - Pupils within normal limits, motilities within normal limits
   - Anterior Segment:
     1. Clear conjunctiva OD, 3+ diffuse injection of bulbar and palpebral conjunctiva OS
     2. Cornea clear OD, diffuse microcystic edema inferotemporal with mild endothelial folds OS
     3. No epithelial defects or corneal staining OD or OS
     4. Clear anterior chamber OD, trace-grade 1 cells no flare OS
     5. Goldmann applanation tonometry: 10mmHG OD/OS
   - Laboratory Studies
     1. Viral PCR swab of upper lid not corneal (not a conclusive sample)- negative for HSV, VZV

III. Differential diagnosis
   - Primary: HSV deep keratouveitis
   - Others:
     - Uveitis idiopathic
     - Herpes Zoster
     - Bacterial Keratitis
     - Keratoconjunctivitis Sicca

IV. Diagnosis and discussion
   - Patient’s history of a cold sore on lip one week prior to ocular findings supported HSV as the underlying cause
   - Light sensitivity, mild anterior chamber reaction, and endotheliitis are all suggestive of an underlying viral infection
   - Due to the minimal uveitic reaction that did not correspond to patient's severe complaints the suspicion of HSV infection was high on the list

V. Treatment and management
   - Based on above reasons, the patient was started on famciclovir 500mg tid, homatropine 2.0% bid OS, and preservative free artificial tears qid to prn OU
   - Treatment with famciclovir in this case was also used for diagnostic purposes. Improvement of presentation and symptoms with anti-virals would support the diagnosis of HSV, that is why topical steroids were not used as well
   - Steroids were also not used at this time because the inflammatory response was much less than the corneal endotheliitis. This led us to believe that the
anterior chamber cells were due to the virus and not an inflammatory immune reaction
• If there had been more inflammation or if the inflammation persisted with just the anti-viral treatment, a topical steroid would have been added
• Patient was followed a few days after initial presentation and his symptoms of light sensitivity, redness and pain had all decreased substantially with treatment
• Clinical findings showed improved acuity, decreased injection, and almost completely resolved anterior chamber reaction not warranting the use of steroid at this time
• Within three weeks the stromal and endothelial edema had resolved without steroid use, as well as the anterior chamber reaction
• The famciclovir was then tapered off with no re-activation as of yet

VI. Conclusion
• HSV keratouveitis can vary clinically and make diagnosis difficult
• HSV viral infection can be disguised and may be misdiagnosed in these cases as idiopathic uveitis
• If symptoms appear to be much worse than presentation of inflammation in addition to deep endotheliitis, then HSV infection should always be high on the list of differentials
• Close follow up is important due to HSV’s variable ocular outcomes
• Oral anti-virals are a main component in the treatment of these cases
• Although topical steroids have been proven effective, they should be avoided in cases of active epithelial HSV keratitis